I28.112:985

MINERAL INDUSTRY SURVEYS

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
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Explosives, Annual

APPARENT CONSUMPTION OF INDUSTRIAL EXPLOSIVES AND BLASTING AGENTS IN THE UNITED STATES, 1985

Apparent consumption of explosives and blasting agents in the United States decreased 13% to 3.8 billion pounds, according to the Bureau of Mines, U.S. Department of the Interior. Apparent consumption is measured by sales reported by manufacturers.

Permissibles consumption decreased 8% and other high explosives consumption increased 38% compared with that of 1984.

All principal consuming industries except quarry and nonmetal mining and all other purposes used less quantities of explosives and blasting agents in 1985 than in 1984. About 59% of the total weight was utilized in the mining of coal. Nearly all permissibles and 62% of ammonium nitrate-fuel oil blasting agents and unprocessed ammonium nitrate were consumed in coal mining. Other high explosives were used primarily in quarrying and nonmetal mining (41%) and construction (26%). The major uses of water gels and slurries were in coal mining (41%) and quarrying and nonmetal mining (25%). The Higher Strength Blasting Agents class established in 1983 was discontinued in 1985. The specific gravity of these blasting agents is greater than 1 gram per cubic centimeter, but since they were usually admixtures of water gels, slurries, emulsions, or aluminum, they are now included in the Water Gels, Slurries, and Emulsions class.

Seven States collectively consumed 58% of all explosives and blasting agents used in the United States in 1985. These were, in decreasing order of consumption, Kentucky, Pennsylvania, West Virginia, Wyoming, Alabama, Ohio, and Illinois.

Prepared in the Division of Industrial Minerals, July 31, 1986.

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Classification of Industrial Explosives and Blasting Agents

"Apparent consumption" of explosives and blasting agents, as used in this report, means sales reported to the Institute of Makers of Explosives (IME) by IME members and provided to the Bureau of Mines on a proprietary basis, plus sales by nonmember manufacturers reported directly to the Bureau on Form 6-1439-A. Classification of explosives and blasting agents by type and use appears as reported by the manufacturers. Sales of explosives and blasting agents imported by nonmanufacturers are not included, but may be locally important. Some quantities are published in such a way to avoid disclosing company proprietary data.

The principal distinction between explosives and blasting agents is related to their sensitivity to initiation. Explosives are cap-sensitive but blasting agents are not, and therefore require a primer. Only "high" explosives are currently reported. "Low" explosives, which burn very rapidly but do not detonate, include principally black powder and propellants. Black powder has not been reported in industrial use since 1971. Both explosives and blasting agents vary widely in composition, although most blasting agents are essentially mixtures of ammonium nitrate plus a fuel.

Water gels and slurries may be either explosives or blasting agents, but for convenience are classified in a separate category.

The six product classifications used in this report are the same as those adopted by IME. These are as follows:

1. Permissibles.--Grades of high explosives approved by brand name by the U.S. Bureau of Mines or the Mine Safety and Health Administration for use, in a prescribed manner, in underground coal mines, including water gels and slurries approved as permissibles.

2. Other High Explosives.--All high explosives except

   (a) permissibles and

   (b) any water gels or slurries that would otherwise be classified as high explosives.

Included in the "Other High Explosives" classification are all formulations packaged in metal containers.

3. Packaged and Bulk Water Gels, Slurries, and Emulsions.--All water gels, slurries, and emulsions, packaged or in bulk, made by addition of more than 5% water to high explosives or blasting agents, except those approved as permissibles.

4. Ammonium Nitrate-Fuel Oil Blasting Agents.--Without regard to packaging or container, and having a density less than 1.0 gram per cubic centimeter (cc).

5. Unprocessed Ammonium Nitrate.--Prilled or grained ammonium nitrate for use in blasting agents.

6. Higher Strength Blasting Agents.--All ammonium nitrate-fuel oil mixtures having a density greater than 1.0 gram per cc, or mixtures sensitized by fuels other than fuel oil (e.g., nitro compounds, aluminum, emulsions).

Companies covered by this report, including IME members, are as follows:

American Cyanamid Company--New Castle, Pennsylvania
Apache Powder Company--Benson, Arizona
Atlas Powder Company--Dallas, Texas
Austin Powder Company--Cleveland, Ohio
C-I-L Inc.--Willowdale, Ontario, Canada
Columbia Nitrogen Corp.--Augusta, Georgia
E. I. du Pont de Nemours & Co., Inc.--Wilmington, Delaware
Ensign Bickford Company--Simsbury, Connecticut
Goex Inc.--Cleburne, Texas
W.R. Grace & Co. ACG--Memphis, Tennessee
Hawkeye Chemical Company--Clinton, Iowa
Independent Explosives Company of Pennsylvania--Scranton, Pennsylvania
Ireco Incorporated--Salt Lake City, Utah
Kaichem Internal Corp.--Garden City, Georgia
Mining Services International--Salt Lake City, Utah
Nitrochem Energy Corp.--Allentown, Pennsylvania
Sierra Chemical Company--Reno, Nevada
Southern Explosives Corporation--Glasgow, Kentucky
Thermex Energy Corporation--Dallas, Texas
Trojan Corp.--Salt Lake City, Utah
UNOCAL Corporation--Los Angeles, California
USS Agri-Chemicals--Atlanta, Georgia

TABLE 1.--Salient statistics of industrial explosives and blasting agents sold for consumption in the United States, 1984-85
(Thousand pounds)

Class	1984	1985
Permissibles	39,238	36,068
Other high explosives 1/	98,246	135,876
Water gels, slurries, and emulsions 1/	334,758	324,526
Ammonium nitrate-fuel oil blasting agents 1/	543,654	556,859
Unprocessed ammonium nitrate 2/	3,277,681	2,747,025
Higher strength blasting agents 1/3/	63,281	---
Total	4,356,858	3,800,354

1/Some quantities of this class of explosive are included with "Unprocessed ammonium nitrate" to avoid disclosing company proprietary data.

2/Includes some quantities of other high explosives, water gels, slurries, and emulsions, ammonium nitrate-fuel oil blasting agents, and higher strength blasting agents (1984).

3/Higher strength blasting agents classification was discontinued in 1985. Blasting agents formerly in that classification are now included in "Water gels, slurries, and emulsions."

TABLE 2.--Industrial explosives and blasting agents sold for consumption in the United States, by class and use, 1984-85
(Thousand pounds)

Class	Coal mining 1/		Metal mining 1/		Quarrying and nonmetal mining 1/		Construction work 1/		All other purposes 2/		Total	
	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985
Permissibles	37,721	34,563	195	117	345	481	902	836	75	71	39,238	36,068
Other high explosives 3/	20,357	21,705	7,771	9,466	29,658	55,470	23,189	35,460	17,271	13,775	98,246	135,876
Water gels and slurries 3/	99,340	133,858	78,959	66,653	102,849	80,283	42,464	27,487	11,146	16,245	334,758	324,526
Ammonium nitrate-fuel oil blasting agents 3/	362,675	369,139	24,860	29,534	93,295	106,727	59,729	47,292	3,095	4,167	543,654	556,859
Unprocessed ammonium nitrate 4/	2,195,216	1,682,038	323,817	276,640	241,403	267,539	170,115	136,376	347,130	384,432	3,277,681	2,747,025
Higher strength blasting agents 3/5/	43,350	--	1,615	--	12,323	--	5,874	--	119	--	63,281	--
Total	2,758,659	2,241,303	437,217	382,410	479,873	510,500	302,273	247,451	378,836	418,690	4,356,858	3,800,354

1/Some quantities of this use are included with "All other purposes" to avoid disclosing company proprietary data.
2/Includes some quantities from coal mining, metal mining, quarrying and nonmetal mining, and construction work.
3/Some quantities of this class of explosive are included with "Unprocessed ammonium nitrate" to avoid disclosing company proprietary data.
4/Includes some quantities of other high explosives, water gels and slurries, ammonium nitrate-fuel oil blasting agents, and higher strength blasting agents (1984).
5/Higher strength blasting agents classification was discontinued in 1985. Blasting agents formerly in that classification are now included in "Water gels, slurries, and emulsions."

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TABLE 3. Industrial explosives and blasting agents sold for consumption in the United States, by State and use, 1985
(Thousand pounds)

State	Use					
	Coal mining	Metal mining	Quarrying and nonmetal mining	Construction work	All other purposes	Total
Alabama	189,218	--	6,941	30,883	515	227,557
Alaska	18,585	19	28	4,925	580	24,137
Arizona	19,122	82,379	298	111	8,606	110,516
Arkansas	14	5	7,246	2,234	114	9,613
California	43	2,073	13,011	6,482	972	22,581
Colorado	35,323	10,854	2,526	2,043	1,296	52,042
Connecticut	--	--	6,007	1,716	519	8,242
Delaware	--	--	--	23	6	29
District of Columbia 1/	--	--	--	--	--	--
Florida	86	--	27,299	6,473	42	33,900
Georgia	28	--	18,058	995	--	19,081
Hawaii	--	--	335	45	15	395
Idaho	32,576	16,317	1,952	125	21	50,991
Illinois	24,606	5	123,581	4,283	8,742	161,217
Indiana	76,088	--	8,956	24,377	1,042	110,463
Iowa	2,216	--	11,642	216	9,797	23,871
Kansas	844	--	8,746	701	491	10,782
Kentucky	617,040	--	29,936	35,875	37,297	720,148
Louisiana	--	--	337	44	1,548	1,929
Maine	--	--	281	1,452	--	1,733
Maryland	888	--	2,895	568	297	4,648
Massachusetts	--	--	7,968	2,083	611	10,662
Michigan	1,543	22,441	6,334	589	5,648	36,555
Minnesota	--	65,338	4,370	309	6,208	76,225
Mississippi	--	--	21	29	913	963
Missouri	17,303	3,365	29,097	8,737	3,284	61,786
Montana	48,382	84,760	73	2,221	2,361	137,797
Nebraska	--	--	--	2,629	2	2,631
Nevada	30	49,111	1,853	502	160	51,656
New Hampshire	--	--	1,429	2,689	14	4,132
New Jersey	3	--	4,750	238	18	5,009
New Mexico	52,433	35,879	644	3,989	706	93,651
New York	4	586	10,732	4,374	61	15,757
North Carolina	12,770	--	41,937	1,942	5	56,654
North Dakota	--	--	30	34	561	625
Ohio	157,582	62	22,472	4,639	5,620	190,375
Oklahoma	15,665	3,860	20,295	9,002	816	49,638
Oregon	--	--	3,796	7,062	1,425	12,283
Pennsylvania	276,796	--	20,776	8,433	107,686	413,691
Rhode Island	--	--	3	408	--	411
South Carolina	18	12	562	60	--	652
South Dakota	--	--	76	67	604	747
Tennessee	45,309	945	12,182	6,219	115	64,770
Texas	2,185	33	14,340	20,699	5,864	43,121
Utah	524	3,752	5,966	1,130	1,166	12,538
Vermont	126	--	332	1,210	481	2,149
Virginia	112,567	--	6,029	2,913	242	121,751
Washington	5,301	362	17,903	10,997	1,876	36,439
West Virginia	236,757	--	810	18,005	4,691	260,263
Wisconsin	--	--	3,649	1,422	991	6,062
Wyoming	239,328	252	1,996	1,249	2,804	245,629
Undistributed	2/	2/	2/	2/	191,857	191,857
Total	2,241,303	382,410	510,500	247,451	418,690	3,800,354

1/Included with Maryland.
2/Some undistributed quantities are included in "All other purposes" to avoid disclosing company proprietary data.

TABLE 4.—Industrial explosives and blasting agents sold for consumption in the United States, by State and class, 1985
(Thousand pounds)

State	Class					
	Fixed high explosives		Blasting Agents			
	Permissibles	Other high explosives 1/	Water gels, slurries, and emulsions 1/	Ammonium nitrate-fuel oil blasting agents 1/	Unprocessed ammonium nitrate 2/	Total
Alabama	1,465	2,566	1,658	886	220,982	227,557
Alaska	--	4,875	590	572	18,100	24,137
Arizona	--	1,697	31,012	2,543	75,264	110,516
Arkansas	--	1,292	2,169	1,951	4,201	9,613
California	--	3,411	6,063	8,098	5,009	22,581
Colorado	117	2,929	9,900	4,719	34,377	52,042
Connecticut	--	3,555	1,941	1,640	1,106	8,242
Delaware	--	4	--	--	25	29
District of Columbia 3/	--	--	--	--	--	--
Florida	--	2,059	20,804	1,521	9,516	33,900
Georgia	--	1,609	8,525	2,271	6,676	19,081
Hawaii	--	75	120	200	--	395
Idaho	--	1,156	193	6	49,636	50,991
Illinois	315	5,219	13,944	14,970	126,769	161,217
Indiana	12	2,400	12,375	34,255	61,421	110,463
Iowa	238	4,599	2,117	1,056	15,861	23,871
Kansas	--	1,531	1,271	7,744	236	10,782
Kentucky	19,721	7,916	18,982	162,709	510,820	720,148
Louisiana	--	1,760	169	--	--	1,929
Maine	--	688	148	897	--	1,733
Maryland	5	1,547	2,106	52	938	4,648
Massachusetts	1	3,578	1,380	5,702	1	10,662
Michigan	6	1,392	12,511	5,407	17,239	36,555
Minnesota	--	811	16,346	11,384	47,684	76,225
Mississippi	--	963	--	--	--	963
Missouri	--	9,501	3,251	9,804	39,230	61,786
Montana	56	2,737	7,068	160	127,776	137,797
Nebraska	--	171	6	906	1,548	2,631
Nevada	--	360	217	4,380	46,699	51,656
New Hampshire	--	1,968	220	1,930	14	4,132
New Jersey	3	1,666	1,313	2,009	18	5,009
New Mexico	23	1,367	23,366	4,037	64,858	93,651
New York	19	3,722	3,735	6,102	2,179	15,757
North Carolina	--	7,744	10,998	3,809	34,103	56,654
North Dakota	2	171	--	--	452	625
Ohio	92	3,325	4,951	40,584	141,423	190,375
Oklahoma	--	1,795	7,592	23,083	17,178	49,638
Oregon	--	1,493	139	2,933	7,718	12,283
Pennsylvania	1,094	7,519	18,527	49,307	337,244	413,691
Rhode Island	--	200	18	193	--	411
South Carolina	--	360	174	8	110	652
South Dakota	--	10	76	63	598	747
Tennessee	961	8,300	5,248	25,976	24,285	64,770
Texas	--	5,948	3,551	10,916	22,706	43,121
Utah	121	3,635	930	--	7,852	12,538
Vermont	--	844	246	1,059	--	2,149
Virginia	7,413	3,367	4,028	34,743	72,200	121,751
Washington	1	3,496	353	123	32,466	36,439
West Virginia	4,400	3,588	3,004	56,114	193,137	260,263
Wisconsin	--	1,619	682	6	3,755	6,062
Wyoming	3	3,338	60,519	10,031	171,738	245,629
Undistributed	--	--	--	--	191,857	191,857
Total	36,068	135,876	324,526	556,859	2,747,025	3,800,354

1/Some quantities of this class of explosives are included with "Unprocessed ammonium nitrate" to avoid disclosing company proprietary data.

2/Includes some quantities of other high explosives, water gels, slurries, and emulsions, and ammonium nitrate-fuel oil blasting agents.

3/ Included with Maryland.

TABLE 5.--Permissible explosives sold for consumption in the United States, by State and use, 1985
(Thousand pounds)

State	Use					Total
	Coal mining	Metal mining	Quarrying and nonmetal mining	Construction work	All other purposes	
Alabama	1,215	--	--	250	--	1,465
Alaska	--	--	--	--	--	--
Arizona	--	--	--	--	--	--
Arkansas	--	--	--	--	--	--
California	--	--	--	--	--	--
Colorado	101	8	--	--	8	117
Connecticut	--	--	--	--	--	--
Delaware	--	--	--	--	--	--
District of Columbia 1/	--	--	--	--	--	--
Florida	--	--	--	--	--	--
Georgia	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--
Idaho	--	--	--	--	--	--
Illinois	312	--	--	3	--	315
Indiana	10	--	2	--	--	12
Iowa	238	--	--	--	--	238
Kansas	--	--	--	--	--	--
Kentucky	19,707	--	14	--	--	19,721
Louisiana	--	--	--	--	--	--
Maine	--	--	--	--	--	--
Maryland	5	--	--	--	--	5
Massachusetts	--	--	1	--	--	1
Michigan	6	--	--	--	--	6
Minnesota	--	--	--	--	--	--
Mississippi	--	--	--	--	--	--
Missouri	--	--	--	--	--	--
Montana	14	17	--	--	25	56
Nebraska	--	--	--	--	--	--
Nevada	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--
New Jersey	3	--	--	--	--	3
New Mexico	13	--	--	10	--	23
New York	4	--	--	15	--	19
North Carolina	--	--	--	--	--	--
North Dakota	--	--	--	2	--	2
Ohio	53	--	35	4	--	92
Oklahoma	--	--	--	--	--	--
Oregon	--	--	--	--	--	--
Pennsylvania	732	--	107	255	--	1,094
Rhode Island	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--
Tennessee	528	5	197	231	--	961
Texas	--	--	--	--	--	--
Utah	2	87	--	--	32	121
Vermont	--	--	--	--	--	--
Virginia	7,398	--	--	15	--	7,413
Washington	--	--	--	--	1	1
West Virginia	4,219	--	125	51	5	4,400
Wisconsin	--	--	--	--	--	--
Wyoming	3	--	--	--	--	3
Total	34,563	117	481	836	71	36,068

1/Included with Maryland.

TABLE 6.--Other high explosives sold for consumption in the United States, by State and use, 1985 1/
(Thousand pounds)

State	Use					
	Coal mining	Metal mining	Quarrying and nonmetal mining	Construction work	All other purposes	Total
Alabama	957	--	196	1,074	339	2,566
Alaska	470	5	16	3,999	385	4,875
Arizona	176	1,439	9	51	22	1,697
Arkansas	10	5	575	619	83	1,292
California	43	37	520	2,684	127	3,411
Colorado	497	1,507	103	55	767	2,929
Connecticut	--	--	2,852	693	10	3,555
Delaware	--	--	--	4	--	4
District of Columbia 2/	--	--	--	--	--	--
Florida	86	--	1,261	670	42	2,059
Georgia	11	--	1,405	193	--	1,609
Hawaii	--	--	19	41	15	75
Idaho	--	1,071	19	53	13	1,156
Illinois	816	5	3,072	1,301	25	5,219
Indiana	1,040	--	1,305	55	--	2,400
Iowa	159	--	4,382	58	--	4,599
Kansas	150	--	935	163	283	1,531
Kentucky	5,753	--	1,194	926	43	7,916
Louisiana	--	--	292	44	1,424	1,760
Maine	--	--	103	585	--	688
Maryland	84	--	1,357	106	--	1,547
Massachusetts	--	--	2,871	707	--	3,578
Michigan	22	119	823	249	179	1,392
Minnesota	--	105	654	52	--	811
Mississippi	--	--	21	29	913	963
Missouri	45	852	6,443	2,141	20	9,501
Montana	185	95	73	133	2,251	2,737
Nebraska	--	--	--	169	2	171
Nevada	30	193	41	22	74	360
New Hampshire	--	--	718	1,250	--	1,968
New Jersey	--	--	1,473	193	--	1,666
New Mexico	212	374	2	687	92	1,367
New York	--	249	2,721	752	--	3,722
North Carolina	636	--	6,016	1,092	--	7,744
North Dakota	--	--	30	32	109	171
Ohio	1,249	62	1,575	393	46	3,325
Oklahoma	121	12	652	257	753	1,795
Oregon	--	--	619	869	5	1,493
Pennsylvania	2,624	--	3,531	1,236	128	7,519
Rhode Island	--	--	--	200	--	200
South Carolina	--	1	306	53	--	360
South Dakota	--	--	--	4	6	10
Tennessee	468	839	3,602	3,391	--	8,300
Texas	14	--	1,003	2,238	2,693	5,948
Utah	522	2,203	--	51	859	3,635
Vermont	126	--	187	396	135	844
Virginia	1,256	--	1,418	693	--	3,367
Washington	104	253	263	2,813	63	3,496
West Virginia	2,516	--	241	815	16	3,588
Wisconsin	--	--	517	1,101	1	1,619
Wyoming	1,333	40	55	68	1,852	3,338
Total	21,705	9,466	55,470	35,460	13,775	135,876

1/Some quantities of other high explosives are included with "Unprocessed ammonium nitrate" to avoid disclosing company proprietary data.
2/Included with Maryland.

TABLE 7.--Packaged and bulk water gels, slurries, and emulsions sold for consumption in the United States, by State and use, 1985 1/
(Thousand pounds)

State	Use					
	Coal mining	Metal mining	Quarrying and nonmetal mining	Construction work	All other purposes	Total
Alabama	84	--	1,340	99	135	1,658
Alaska	15	--	--	380	195	590
Arizona	--	24,779	--	17	6,216	31,012
Arkansas	--	--	1,488	679	2	2,169
California	--	145	4,833	944	141	6,063
Colorado	5,654	3,208	356	161	521	9,900
Connecticut	--	--	816	616	509	1,941
Delaware	--	--	--	--	--	--
District of Columbia 2/	--	--	--	--	--	--
Florida	--	--	17,136	3,668	--	20,804
Georgia	17	--	7,936	572	--	8,525
Hawaii	--	--	116	4	--	120
Idaho	--	22	97	66	8	193
Illinois	7,292	--	3,548	1,784	1,320	13,944
Indiana	7,951	--	3,342	40	1,042	12,375
Iowa	57	--	1,879	26	155	2,117
Kansas	694	--	546	20	11	1,271
Kentucky	15,881	--	2,263	433	405	18,982
Louisiana	--	--	45	--	124	169
Maine	--	--	7	141	--	148
Maryland	174	--	1,538	97	297	2,106
Massachusetts	--	--	550	220	610	1,380
Michigan	--	9,931	2,325	160	95	12,511
Minnesota	--	15,075	1,202	69	--	16,346
Mississippi	--	--	--	--	--	--
Missouri	--	3	1,654	707	887	3,251
Montana	691	4,204	--	2,088	85	7,068
Nebraska	--	--	--	6	--	6
Nevada	--	15	83	80	39	217
New Hampshire	--	--	53	167	--	220
New Jersey	--	--	1,272	41	--	1,313
New Mexico	13,654	8,373	--	1,138	201	23,366
New York	--	--	2,275	1,399	61	3,735
North Carolina	274	--	10,331	388	5	10,998
North Dakota	--	--	--	--	--	--
Ohio	736	--	1,870	2,035	310	4,951
Oklahoma	3,464	--	962	3,093	63	7,582
Oregon	--	--	93	46	--	139
Pennsylvania	10,587	--	5,142	1,212	1,586	18,527
Rhode Island	--	--	3	15	--	18
South Carolina	18	11	138	7	--	174
South Dakota	--	--	76	--	--	76
Tennessee	3,085	101	1,709	238	115	5,248
Texas	--	--	1,060	2,215	276	3,551
Utah	--	640	--	15	275	930
Vermont	--	--	103	111	32	246
Virginia	1,798	--	1,316	672	242	4,028
Washington	1	109	104	138	1	353
West Virginia	1,851	--	250	625	278	3,004
Wisconsin	--	--	367	315	--	682
Wyoming	59,880	37	59	540	3	60,519
Total	133,858	66,653	80,283	27,487	16,245	324,526

1/ Some quantities of packaged and bulk water gels, slurries, and emulsions are included with "Unprocessed ammonium nitrate" to avoid disclosing company proprietary data.
2/ Included with Maryland.

TABLE 8.--Ammonium nitrate-fuel oil blasting agents sold for consumption in the United States, by State and use, 1985 1/
(Thousand pounds)

State	Use					
	Coal mining	Metal mining	Quarrying and nonmetal mining	Construction work	All other purposes	Total
Alabama	378	--	281	227	--	886
Alaska	--	14	12	546	--	572
Arizona	--	2,141	289	43	70	2,543
Arkansas	4	--	1,428	519	--	1,951
California	--	1,461	4,761	1,788	88	8,098
Colorado	984	3,735	--	--	--	4,719
Connecticut	--	--	1,392	248	--	1,640
Delaware	--	--	--	--	--	--
District of Columbia 2/	--	--	--	--	--	--
Florida	--	--	481	1,040	--	1,521
Georgia	--	--	2,041	230	--	2,271
Hawaii	--	--	200	--	--	200
Idaho	--	--	--	6	--	6
Illinois	11,215	--	2,560	1,195	40	14,970
Indiana	29,932	--	4,306	17	--	34,255
Iowa	--	--	988	68	--	1,056
Kansas	--	--	7,225	518	1	7,744
Kentucky	150,206	--	9,358	3,145	--	162,709
Louisiana	--	--	--	--	--	--
Maine	--	--	171	726	--	897
Maryland	25	--	--	27	--	52
Massachusetts	--	--	4,546	1,156	--	5,702
Michigan	1,515	757	3,093	42	--	5,407
Minnesota	--	11,374	10	--	--	11,384
Mississippi	--	--	--	--	--	--
Missouri	--	--	6,691	3,113	--	9,804
Montana	160	--	--	--	--	160
Nebraska	--	--	--	906	--	906
Nevada	--	2,205	1,728	400	47	4,380
New Hampshire	--	--	658	1,272	--	1,930
New Jersey	--	--	2,005	4	--	2,009
New Mexico	--	3,629	48	1	359	4,037
New York	--	337	4,661	1,104	--	6,102
North Carolina	--	--	3,347	462	--	3,809
North Dakota	--	--	--	--	--	--
Ohio	27,356	--	12,773	455	--	40,584
Oklahoma	11,057	3,848	2,858	5,320	--	23,083
Oregon	--	--	2,358	445	130	2,933
Pennsylvania	34,576	--	11,849	2,539	343	49,307
Rhode Island	--	--	--	193	--	193
South Carolina	--	--	8	--	--	8
South Dakota	--	--	--	63	--	63
Tennessee	17,089	--	6,674	2,213	--	25,976
Texas	--	33	5,397	2,809	2,677	10,916
Utah	--	--	--	--	--	--
Vermont	--	--	42	703	314	1,059
Virginia	32,272	--	2,222	249	--	34,743
Washington	--	--	32	46	45	123
West Virginia	43,083	--	194	12,837	--	56,114
Wisconsin	--	--	--	6	--	6
Wyoming	9,287	--	40	611	93	10,031
Total	369,139	29,534	106,727	47,292	4,167	556,859

1/Some quantities of ammonium nitrate-fuel oil blasting agents are included with "Unprocessed ammonium nitrate" to avoid disclosing company proprietary data.
2/Included with Maryland.

TABLE 9.--Unprocessed ammonium nitrate sold for consumption in the United States, by State and use, 1985 1/
(Thousand pounds)

State	Use					
	Coal mining	Metal mining	Quarrying and nonmetal mining	Construction work	All other purposes	Total
Alabama	186,584	--	5,124	29,233	41	220,982
Alaska	18,100	--	--	--	--	18,100
Arizona	18,946	54,020	--	--	2,298	75,264
Arkansas	--	--	3,755	417	29	4,201
California	--	430	2,897	1,066	616	5,009
Colorado	28,087	2,396	2,067	1,827	--	34,377
Connecticut	--	--	947	159	--	1,106
Delaware	--	--	--	19	6	25
District of Columbia 2/	--	--	--	--	--	--
Florida	--	--	8,421	1,095	--	9,516
Georgia	--	--	6,676	--	--	6,676
Hawaii	--	--	--	--	--	--
Idaho	32,576	15,224	1,836	--	--	49,636
Illinois	4,971	--	114,401	--	7,397	126,769
Indiana	37,155	--	1	24,265	--	61,421
Iowa	1,762	--	4,393	64	9,642	15,861
Kansas	--	--	40	--	196	236
Kentucky	425,493	--	17,107	31,371	36,849	510,820
Louisiana	--	--	--	--	--	--
Maine	--	--	--	--	--	--
Maryland	600	--	--	338	--	938
Massachusetts	--	--	--	--	1	1
Michigan	--	11,634	93	138	5,374	17,239
Minnesota	--	38,784	2,504	188	6,208	47,684
Mississippi	--	--	--	--	--	--
Missouri	17,258	2,510	14,309	2,776	2,377	39,230
Montana	47,332	80,444	--	--	--	127,776
Nebraska	--	--	--	1,548	--	1,548
Nevada	--	46,698	1	--	--	46,699
New Hampshire	--	--	--	--	14	14
New Jersey	--	--	--	--	18	18
New Mexico	38,554	23,503	594	2,153	54	54,858
New York	--	--	1,075	1,104	--	2,179
North Carolina	11,860	--	22,243	--	--	34,103
North Dakota	--	--	--	--	452	452
Ohio	128,188	--	6,219	1,752	5,264	141,423
Oklahoma	1,023	--	15,823	332	--	17,178
Oregon	--	--	726	5,702	1,290	7,718
Pennsylvania	226,277	--	147	3,191	105,629	337,244
Rhode Island	--	--	--	--	--	--
South Carolina	--	--	110	--	--	110
South Dakota	--	--	--	--	598	598
Tennessee	24,139	--	--	146	--	24,285
Texas	2,171	--	6,880	13,437	218	22,706
Utah	--	822	5,966	1,064	--	7,852
Vermont	--	--	--	--	--	--
Virginia	69,843	--	1,073	1,284	--	72,200
Washington	5,196	--	17,504	8,000	1,766	32,466
West Virginia	185,088	--	--	3,677	4,392	193,157
Wisconsin	--	--	2,765	--	990	3,755
Wyoming	168,835	175	1,842	30	856	171,738
Undistributed 3/	4/	4/	4/	4/	191,857	191,857
Total	1,682,038	276,640	267,539	136,376	384,432	2,747,025

1/Includes some quantities of other high explosives, packaged and bulk water gels, slurries, and emulsions, and ammonium nitrate-fuel oil blasting agents.
2/ Included with Maryland.
3/ Quantities undistributed to avoid disclosing company proprietary data.
4/ Undistributed quantity for this use is included with undistributed "All other purposes."

U.S. Department of the Interior
Bureau of Mines—Prod. and Distr.
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